

II. Remarks

A. Introduction

Reconsideration and allowance of the subject application are respectfully requested. Claims 6-10 are pending in the application. Claim 6 is independent. Claims 6-10 have been amended for clarity with respect to the specification and drawings. In particular, Claim 6 to recite that “each of said unit pixels provides a color filter, which may comprise any one color of a plurality of color filters.” Support for this amendment can be found at least on page 3, paragraph [0030] of U.S. Patent Application Publication No. 2006/0152660 (hereinafter, “the ‘660 Publication”). Accordingly, no new matter has been added.

B. The rejection under 35 U.S.C. § 112 should be withdrawn

Claim 8 stands rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for the reasons set forth at page 2 of the Office Action. Applicants respectfully traverse this rejection in view of the amended claims.

Claim 8 has been amended to recite “a first polarization plate” and “a second polarization plate.” As amended, Claim 8 provides proper antecedent basis for these features. Accordingly, Applicants respectfully request that the rejection be withdrawn.

C. The rejections under 35 U.S.C. § 103(a) should be withdrawn

Claims 6-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2007/0064187 to Takeda, et al. (hereinafter “Takeda”) for the reasons set forth at pages 2-5 of the Office Action. Applicants respectfully traverse this rejection in view of the amended claims.

To establish a prima facie case of obviousness, the Patent Office must show, *inter alia*, that the prior art teaches or suggests all the claim limitations. *Manual of Patent Examination and Procedure (MPEP)* § 2143.03; *In re Royka*, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

As amended, Claim 6 recites,

a liquid crystal display apparatus, comprising a first substrate . . . ;
a second substrate . . . ; and orientation controlling means that are

formed either on said first substrate or said second substrate;
wherein the arrangement of said orientation controlling means in
two types of pixels used as unit pixels is linearly symmetrical, and
wherein approximately the same number of the two types of pixels
are irregularly arrayed, and wherein each of said unit pixels
provides a color filter, which may comprise any one color of a
plurality of color filters.

As such, the invention of Claim 6 includes two types of pixels, even for the same color.
Also, each of these types of pixels has a color filter that may comprise any one color of a
plurality of color filters.

The Office Action, at pages 3-4, states that Takeda teaches a liquid crystal display
device “where the arrangement of the orientation controlling means in two types of pixels
used as unit pixels is linearly symmetrical and approximately the same number of the two
types of pixels are irregularly arrayed (shown in at least Fig. 56, 114 and 160).”

However, Fig. 56 discloses pixels that are equal in size, shape and protrusion
configuration. Takeda states, at paragraph [0362], “the pitch of repeated patterns of
protrusions should be matched with the pitch of arrayed pixels, and a continuous pattern
of protrusions should be adopted.” Therefore, Fig. 56 does not disclose “the arrangement
of said orientation controlling means in two types of pixels used as unit pixels is linearly
symmetrical,” as is recited in amended Claim 6. Instead, Fig. 56 discloses only one type
of pixel, i.e., only pixels equal in size, shape and protrusion configuration.

With regard to Fig. 114, Takeda, at paragraph [0468], discloses, “[b]y changing
the protrusion interval m for each color pixel . . . the difference of the retardation for a
particular color can be reduced Δn while passing through the liquid crystal layer for an
improved color characteristic.” As such, Takeda teaches that the protrusion intervals are
changed depending on each color, which is not the same as “two types of pixels used as
unit pixels being linearly symmetrical,” as recited in amended Claim 6.

In Takeda’s arrangement, all the pixels of a particular color come to have the
same shape. Because pixels of the same shape are arranged as per every particular color,
this arrangement would incur a problem similar to that of a regular arrangement. This
problem is discussed at paragraph [0060] of the ‘660 Publication, specifically, “according
to this regular arrangement, when a regular image such as stripes and checkerboard
pattern is created by using a pixel as a unit, there are cases where the image displayed

comprises only pixels of one type . . . and it is probable that the dependency on the viewing angle will arise”

Therefore, Fig. 114 does not disclose “the arrangement of said orientation controlling means in two types of pixels used as unit pixels is linearly symmetrical, and wherein approximately the same number of the two types of pixels are irregularly arrayed, and wherein each of said unit pixels provides a color filter, which may comprise any one color of a plurality of color filters,” as is recited in amended Claim 6.

With regard to Fig. 160, respective pixels for Red, Green and Blue are disclosed. The protrusions 20A are the same with respect to any of the pixels. Further, the protrusions 61 are equally spaced from one another and are perpendicular to protrusion 20A in all cases. Clearly, the size, shape and protrusion configuration of any one of the pixels is designed to be the same as any other. Therefore, Fig. 160 does not disclose “the arrangement of said orientation controlling means in two types of pixels used as unit pixels is linearly symmetrical,” as is recited in amended Claim 6. Instead, Fig. 160 discloses only one type of pixel, i.e., the pixels having perpendicular protrusions 20A and protrusions 61.

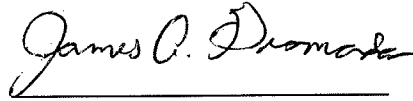
For at least the reasons above, Takeda does not teach the claim limitation, “the arrangement of said orientation controlling means in two types of pixels used as unit pixels is linearly symmetrical, and wherein approximately the same number of the two types of pixels are irregularly arrayed, and wherein each of said unit pixels provides a color filter, which may comprise any one color of a plurality of color filters,” as is recited in amended Claim 6. Therefore, Takeda does not teach or suggest all of the claim limitations of Claim 6, as is required to establish a *prima facie* case of obviousness. Accordingly, amended Claim 6, as well as the respective dependent claims, should be patentable over Takeda. Applicants respectfully request that the rejection be withdrawn.

E. Conclusion

In view of the above, it is believed that this application is in condition for allowance, and a Notice thereof is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3633. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

A handwritten signature in cursive script, reading "James A. Gromada". The signature is written in dark ink and is positioned above a horizontal line.

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